

**STATEMENT OF SUBSTANCE OF INTERVIEW  
UNDER 37 C.F.R § 1.133**

Applicants submit this Statement of Substance of Interview in accordance with 37 C.F.R § 1.133 to be made of record for the above-identified application for patent. Applicants respectfully request entry of the statement as set forth herein.

Applicants again wish to again thank the Examiner for the time and effort spent discussing with Applicants' representative the above-identified application for patent.

Applicants representative and the Examiner held an interview on June 12, 2007, in which the substance an Office Action mailed May 14, 2007, was discussed. Discussions included suggestions by the Examiner in the Office Action mailed May 14, 2007, that Kirk teaches passivating a Si(111) surface with arsenic and does not teach passivating a Si(100) surface in accordance with Applicants' claimed invention. The Examiner agreed to review this Amendment filed after a final Office Action. Amendments as set forth by Applicants are in accordance with discussions held with the Examiner on July 12, 2007.

This is intended to be a written statement as to the substance of a telephonic interview held July 12, 2007, and to be made of record in the application for patent.

### Remarks

Claims 1-43 are pending in this Application. Claims 1-31 have previously been canceled without prejudice. Claims 37-40 are herewith canceled without prejudice. In the Office Action mailed May 14, 2007, the Examiner rejected Claims 32-36 and 40-43 under 35 U.S.C. §102(b) as being anticipated by Kirk et al. (US Patent No. 6,419,742; hereinafter "Kirk"). Applicants, with this paper, have amended Claim 32 to describe a semiconductor surface as a Si(100) surface. Claim 35 has been amended to further describe the claimed invention in accordance with amended Claim 32. Applicants' amendments are in accordance with a suggestion set forth by the Examiner in the Office Action mailed May 14, 2007, and as discussed in an interview held July 12, 2007. In the Office Action, the Examiner states, "Kirk teaches that a single monolayer of arsenic may be employed to passivate a Si(111) surface" (see pg. 2), "while Kirk teaches that additional layers may be necessary for the Si(100) surface" (see pg. 3). In fact, Applicants point out that Kirk explicitly explains that their invention is unsuccessful in accomplishing Applicants' claimed invention particularly when passivating (valence mending) a Si(100) surface by stating, "With the Si(100) surface, however, it has been found that the passivation layer may not completely prevent sulfur from reacting with silicon" (Col. 5, ll. 5-8). As such and in accordance with the Examiner's suggestion, Applicants have amended Claim 32 to include valence mending a Si(100) with one atomic layer of valence-mending atom and valence mending creates a second surface without dangling bonds and free of interfacial reactants. Applicants submit that the claimed invention is not anticipated by Kirk because Kirk does not teach each and every element of Applicants' claimed invention. Applicants further submit that no additional search is required on the part of the Examiner because the amendment does not change the scope of the initial search performed by the Examiner and does not introduce any new issues requiring further consideration.

Applicants do not suggest that the amendments set forth herein are necessarily made in view of the cited references and reserve the right to protect additional, unclaimed subject matter in a continuation application. Applicants reiterate that the amendments and remarks provided herewith introduce no new matter and no new issues requiring further consideration and/or search by the Examiner. The amendments provided with this paper are only those that adopt Examiner suggestions, cancel claims, comply with requirements of form expressly set forth in the final Office Action or present rejected claims in better form for consideration before appeal; such amendments are, therefore, in compliance with 37 C.F.R. 1.116.

### Conclusion

In light of the amendments and remarks presented with this Amendment, Applicants respectfully submit that the claims as provided in the Listing of Claims beginning on page 3 of this paper are in condition for allowance. Accordingly, favorable consideration for and allowance of such claims are respectfully requested.

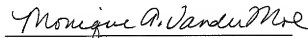
No additional fees are believed due with this Amendment. If this is incorrect, the Commissioner is authorized to charge those additional fees, other than the issue fee, that may be required by this paper to Deposit Account No. 07-0153.

Should the Examiner have any questions or comments, or if further consideration or clarification is required, it is requested that the Examiner contact the undersigned at the telephone number listed below.

Dated: July 20, 2007

Respectfully submitted,

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